DOCUMENT RESUME

ED 102 728 EA 006 851

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TITLE	Experimental Studies of Discrimination in the Evaluation of Job Applicants' Resumes: I. Relative Importance of Sex, Attractiveness, and Scholastic Standing. Paper No. 430.
INSTITUTION	Purdue Univ., Lafayette, Ind. Herman C. Krannert Graduate School of Industrial Administration.
PUB DATE	Nov 73
NOTE	29p.
AVAILABLE FROM	Secretary of the Institute Paper Series, Krannert Graduate School of Industrial Administration, Purdue University, West Lafayette, Indiana 47907 (Paper No. 430, Free)
EDRS PRICE	MF-$0.76 HC-$1.95 PLUS POSTAGE
DESCRIPTORS	*Academic Achievement; Analysis of Variance; *Employment Interviews; Evaluation Methods; Experiments; Industrial Education; *Job Applicants; Personnel Selection; *Sex Discrimination; *Social Discrimination; Stereotypes

ABSTRACT

College students and college recruiters rated bogus resumes of twelve senior industrial management students who were allegedly seeking employment. In addition to subject population, three variables were systematically varied in each resume: applicant's sex, physical attractiveness, and scholastic standing. The dependent variable was subjects' perceptions of the applicant's suitability for the position of head of a furniture department in a large department store. Significant effects showed that applicants with high scholastic standing were preferred to applicants with low scholastic standing, male applicants were preferred to female applicants, attractive applicants were preferred to unattractive applicants, and applicants were rated more favorably by college students than by recruiters. It appears that the training and experience of college recruiters did not reduce the tendency to discriminate among job applicants on the basis of sex or physical attractiveness. (Author)

ED102728

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EXPERIMENTAL STUDIES OF DISCRIMINATION IN THE EVALUATION OF JOB APPLICANTS' RESUMÉS: I. RELATIVE IMPORTANCE OF SEX, ATTRACTIVENESS, AND SCHOLASTIC STANDING

by

Kent Wiback
Robert L. Dipboye
and
Howard L. Fromkin

Paper No. 430 - November 1973

Institute for Research in the
BEHAVIORAL, ECONOMIC, and
MANAGEMENT SCIENCES

KRANNERT GRADUATE SCHOOL OF
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ABSTRACT

College student and college recruiters rated bogus resumés of twelve senior Industrial Management students who were allegedly seeking employment. In addition to subject population, three variables were systematically varied in each resumé: applicant's sex (male or female), physical attractiveness of the applicant (attractive or unattractive) and scholastic standing of the candidate applicant (high, medium, or low). The dependent variable was subjects' perceptions of the applicant's suitability for the position of head of a furniture department in a large department store.

A 2 X 2 X 2 X 3 repeated measures analysis of variance performed on Ss ratings of the applicants' suitability for the managerial position yielded only four significant ($p < .05$) effects. The four main effects showed that applicants with high scholastic standing were preferred to applicants with low scholastic standing, male applicants were preferred to female applicants, attractive applicants were preferred to unattractive applicants, and applicants were rated more favorably by college students. It appears that the training and experience of college recruiters did not reduce the tendency to discriminate among job applicants on the basis of sex or physical attractiveness.

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EXPERIMENTAL STUDIES OF DISCRIMINATION IN EVALUATION OF JOB APPLICANT RESUMÉS: I. RELATIVE IMPORTANCE OF APPLICANT SEX, ATTRACTIVENESS, AND SCHOLASTIC STANDING.[1]

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In Title VII of the Civil Rights Act of 1964, discrimination in hiring on the basis of race, color, religion, sex or national origin is expressly forbidden. Industrial psychologists have responded to this ban with attempts to detect and eliminate cultural bias in personnel testing (Kirkpatrick, Ewen, Barrett, and Katzell, 1968; Cleary, 1968; Farr and O'Leary, 1971: Boehm, 1972). In the concern over unfair testing, there has been a lack of research on bias existant in other phases of the personnel selection process -- namely, screening of applicants prior to the job interview and the job interview itself. In many situations, e.g., college recruiting, the screening and interviewing are performed by the same person. Since interviewers have been found vulnerable to stereotypes in making employment decisions (Webster, 1964), it would seem that more attention to the detection and elimination of bias in the interview is warranted. The present study was undertaken to examine the basis on which interviewers discriminate among job candidate resumés in the screening evaluation phase of the selection interview.

First, a bias against females is likely when male interviewers rate female applicants on their suitability for a supervisory position, a traditionally male occupation. There is evidence to support the contention that male supervisors perceive females as less capable of occupying managerial positions than males. For example, Gilmer (1961) cited a survey in which the majority of male managers (67%) expressed

the belief that women would be inferior to men as supervisors. A more recent survey, reported by Bowman, Worthy and Greyser (1965), found that 41% of the 1000 male executives surveyed expressed negative reactions to women occupying supervisory positions. The present study is the first to examine if such bias exists on the part of male college recruiters. The first hypothesis was that interviewers would rate females as less suitable for employment than males.

Although it has not been tested in the context of discrimination in hiring, it also seems likely that interviewers would rate physically unattractive applicants as less suitable for employment than physically attractive applicants. Social psychologists have found that college students perceive unattractive stimulus persons as less desirable than attractive stimulus persons on a wide variety of traits (Dion, Berscheid and Walster, 1972; Dion, 1972; Miller, 1970a, 1970b; Stroebe, Insko, Thompson and Layton, 1971; Walster, Aronson, Abraham and Rottman, 1966). William Raspberry, the Washington Post columnist, has gone so far as to describe the bias against physically unattractive women as the most persistent and pervasive form of employment discrimination. It also may be the most covert form of discrimination, since "No personnel officer in his right mind will tell a woman, 'sorry lady, but you need a nose job, and your lips don't match'". (Time Magazine, February 21, 1972). Implicit in Raspberry's statement is the common sense notion that discrimination along the lines of physical attractiveness occurs for females but not males. Although research findings (e.g., Dion, et al., 1972; Dion, 1972; and Walster, et al., 1966) suggests that unattractive males and females were both rated more negatively than

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attractive males and females, it is possible that, in the context of a job interview for a supervisory position, one might expect sex and attractiveness of an applicant to interact in such a manner that attractive and unattractive females would differ more in perceived qualifications than attractive and unattractive males.

Method

Summary of Design

The experimental task is compatible with the employment interviewing practive of examining the applicant's resumé prior to the job interview (cf., Hakel, Dobermeyer, and Dunnette, 1970). Groups of college students and college recruiters rated the bogus resumés of twelve senior industrial management students who were allegedly seeking employment. Three variables were systematically varied in each resumé. Sex of the applicant (male or female) was the first independent variable. Physical attractiveness of the applicant (attractive or unattractive) was the second independent variable. Scholastic standing (high, medium or low) was the third independent variable. The dependent variable was Ss' perception of each applicant's suitability for the position of a supervisor in a furniture department of a large department store. The experiment may be summarized as a 2 X 2 X 2 X 3 repeated measures design.

Subjects

Two subject populations were used to complete the experimental task.

College Students. 30 male undergraduate Industrial Management students enrolled in an organizational behavior course at Purdue University participated in the study as a class exercise.

College recruiters. In addition, 30 male college recruiters, representing a wide range of companies, also served as subjects. All

recruiters, contacted earlier by mail and secured with the cooperation of the Purdue University Placement Center[3], were currently interviewing actual job applicants on campus. The recruiters' mean age was 31 and their mean length of experience as interviewers was two years.

All recruiters were administered the task individually by a male E while the students completed the task in their usual class setting.

Procedures

The experimental task was introduced to both populations as a study investigating information processing in employment decision making. Each subject was instructed prior to reviewal of the resumés, that the position to be filled was that of a head of a furniture department in a large department store. To equate Ss in their familiarity with the requirements of this type of position, all Ss were supplied with the following job description:

> The position that is to be filled is that of the head of a furniture department in a large department store in a metropolitan area. There will be a training period in which the applicant would work as a sales clerk in a number of the store's departments. If performance is found satisfactory, the applicant will assume the position of department head. This position will involve approximately 40% of his time being spent interacting with customers and subordinates and the remaining 60% of his time dealing with other department heads and sales representatives. The position is seen to be a very visible one, requiring a high degree of interpersonal skill.

Independent Variables

The twelve resumés, each containing a wallet sized photograph of the applicant, systematically varied according to three dimensions of information: applicants' sex, physical attractiveness, and scholastic standing. Additional information, held relatively constant across all conditions, was presented on each resumé for realism and to conform as

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closely as possible to Hakel's paradigm. All applicants were single, earned approximately one-third of their college expenses, and one of the three previous summer jobs had been in sales.

Scholastic standing. The three levels of scholastic standing (high, average, and low) were manipulated by the student's high school class rank (in the top 100, in the top 400, in the bottom 300), his grade average (3.55-3.45, 3.05-2.95, 2.55-2.45. A=4.0) in his college major (marketing), his overall college grade average (3.55-3.45, 3.05-2.95, 2.55-2.45, A=4.0), and his quartile rank in his college graduating class (first, second, or third).

Sex. The applicant's sex was manipulated by both the photograph and the applicant's name.

Physical attractiveness. Two levels of physical attractiveness (attractive and unattractive) were manipulated by the photographs. All photos used in the study had been previously pilot tested to insure the strength of the attractiveness manipulation. In pilot research, 33 photographs from a college yearbook were each rated on 7 point scales by 20 undergraduates according to perceived physical attractiveness. An overall mean was computed for the perceived physical attractiveness of all the persons in the 33 photographs. The mean rated attractiveness of each photograph was compared with the overall mean of all photographs. The twelve photographs (3 attractive males, 3 attractive females, 3 unattractive males and 3 unattractive females) which differed most from the grand mean were selected and randomized across the experimental conditions. Taken together, these three dimensions of information resulted in twelve resume combinations which were administered to two subject populations. The procedures yielded a 2 X 2 X 2 X 3 repeated measures design.

Dependent Variables

The task of evaluating the resumés consisted of using the job description as a basis for sequentially rating the twelve resumés. The order of the resumés was randomly determined for each subject. The ratings were obtained on a nine point scale developed by Hakel, Dobmeyer and Dunnette (1970) measuring the strength of the interviewer's recommendation about hiring the applicant. The scale ranged from a high of nine, "Would recommend strongly that an offer be made; applicant shows excellent qualifications in relevant areas," to a low of one, "Would recommend that no offer be made; applicant is obviously unqualified.

After rating the twelve resumés, Ss ranked the applicants from most to least satisfactory. Last, Ss ranked the applicants from most to least satisfactory. Last, Ss rated the perceived physical attractiveness of each candidate on a five-point scale with endpoints labeled (1) "very attractive" and (5) "very unattractive."

Results

Effectiveness of Manipulation

A one-way analysis of variance performed on Ss' perception of the applicant's physical attractiveness yielded a significant difference which showed that attractive male ($M = 4.50$) and female ($M = 4.57$) candidates were perceived as more attractive than unattractive male ($M = 2.33$) and female ($M = 1.85$) candidates, with $F = 826.8$, $df = 1$, $p < .01$.

Tests of the Hypotheses

A 2 X 2 X 2 X 3 repeated measures analysis of variance was performed on Ss ratings of the candidates' suitability for the supervisory position. The means are shown in Table 1 below. This analysis yielded only four significant ($p < .05$) effects. First, a main effect of scholastic standing showed that applicants with higher scholastic standing received

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INSERT TABLE 1 ABOUT HERE

more favorable suitability ratings. A Newman-Keuls comparison of the mean scholastic standing ratings demonstrated that applicants with high scholastic standing (M = 6.86) were preferred to applicants with moderate scholastic standing (M = 5.61) who, in turn, were preferred to applicants with low scholastic standing (M = 4.45), $p < .01$. Second, a main of effect of sex of candidate applicant revealed that, as hypothesized, Ss perceived male applicants (M = 5.82) as more suitable than female applicants (M = 5.46) for the managerial position, with F = 15.8, df = 1/58, $p < .01$. Third, a main effect of applicant attractiveness showed that attractive applicants (M = 6.50) were preferred to unattractive applicants (M = 5.23), with F = 69.1, df = ./58, $p < .01$. A main effect of subject population showed that students rated the applicants (M = 5.83) more faborably than college recruiters (M = 5.46), with F = 6.38, df = 1/58, $p < .05$. A summary of the analysis of variance is found in Table 2 below.

INSERT TABLE 2 ABOUT HERE

Even though all three content dimensions were significant factors in the evaluation of the applicants' resumés, their relative importance, as measured by eta squared, differed widely. Scholastic standing, the most heavily weighted factor, accounted for over 33% of the variance, while physical attractiveness accounted for 6% and sex 1%. It appears that scholastic standing was the most important information dimension used in the review of the applicants' resumés.

A frequency distribution of the ranks which were assigned to the resumés is shown in Table 3 below. Inspection of the ranks suggests

INSERT TABLE 3 ABOUT HERE

that the emphasis on scholastic standing which is shown by the eta values may be quite misleading. Many selection situations require that only one person be hired for a particular position. In such situations, the rankings reveal that scholastic standing alone will not determine the applicant's perceived suitability. For example, while attractive males with high scholastic standings were ranked first by 50% of the Ss, an attractive female with high scholastic standing was ranked first by only 17% of the Ss. Likewise, while an unattractive male with high scholastic standing was ranked first by 15% of the Ss, an unattractive female was ranked first by only 3% of the Ss.

Discussion

Consistent with the hypotheses, college students and college recruiters discriminated among applicants for a position on the basis of physical attractiveness and sex. Females were rated as less suitable than males and the physically unattractive candidates were rated as less suitable than physically attractive candidates. These differences were found for professional interviewers as well as college students. The only difference between college student and professional recruiter ratings was the former populations tendency to rate college students more favorbaly. Since college students were rating their peers, it seems psychologically reasonable for their general bias toward college students. However, the training and experience of the college recruiters did not grant them immunity from the tendency to discriminate on the basis of sex and physical attractiveness.

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A possible explanation for the preference for males may be that the position of manager is perceived by both male college students and male recruiters to be a masculine occupation, requiring personal attributes more characteristic of the male role than the female role. While this interpretation cannot be confirmed or disconfirmed on the basis of the data collected, there is a past research which supports the contention that supervision is perceived as a masculine role incompatible with the attributes of the female role. For example, Schein (1973) had subjects rate the extent to which each of 92 adjectives and descriptive terms were characteristic of women in general, men in general and successful middle managers. Managers were found to be more similar to men than to women on 60 of the 86 items for which the groups significantly differed. For instance, managers and men were seen as more emotionally stable, aggressive, self-reliant, vigorous and well-informed than women. In comparison, managers, were more similar to women than men on only eight of the 86 items for which differences were found.

Subjects also rated the physically attractive applicants as more suitable for the position than the physically unattractive candidates. This finding supports and extends previous research in which physically unattractive stimulus persons have been rated more negatively regardless of their sex (cf., Dion, Bercheid and Walster, 1972; Dion, 1972). One possible explanation for this finding is that a stereotype exists for unattractive persons in which they are perceived to be inferior to attractive persons along a number of dimensions. The findings of past studies support the existence of this stereotype. For instance, Dion, Berscheid and Walster (1972) report that physically attractive persons were rated as more sensitive, kind, interesting, strong, poised, modest, sociable and outgoing than unattractive persons. In another study of

this genre, Miller (1970a) found that physically attractive persons were rated more positively than unattractive persons on 15 of the 17 dimensions of the Jackson and Minton (1963) adjective preference scale. As an alternative to the stereotype hypothesis, it is possible that unattractive candidates were not judged as generally inferior persons but merely were perceived to lack the requirements of the job set forth in the job description. Specifically, they may have been perceived to lack the social skills emphasized in the instructions as a critical attribute. Future research on this topic must examine more thoroughly the question of whether unattractive persons are rated more negatively than attractive persons across a broad spectrum of jobs or if this discrimination is specific to those jobs which are "visible" where social skills are of prime importance.

In addition to the main effects for sex and physical attractiveness, a strong main effect for candidate qualifications was found. Consistent with the findings of Hakel, Dobmeyer and Dunnette (1970) and Hakel, Ohnesorge and Dunnette (1970), candidates with high scholastic standing were rated as more suitable for employment than candidates with average scholastic standing. In turn, candidates with average scholastic standing were rated higher than candidates with low scholastic standing. Apparently, scholastic qualifications was the most important determinant of suitability ratings. Scholastic qualifications accounted for over 30% of the variance in the dependent measure, as compared to only 6% for candidate physical attractiveness and less than 1% for candidate sex.

Despite the small percentage of variance which sex and physical attractiveness accounted for, there are at least two reasons that the bias detected in the present study should not be discounted. First, in a typical hiring situation, where there are more applicants than

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positions, any factor which accounts for only a small proportion of interviewer impressions may be a key determinant of the final decision. Although interviewers in the present study were influenced most by qualifications when they rated the candidate on a global measure of suitability, they revealed a strong bias in favor of males and attractive candidates in their rankings. Over 71% of the interviewers ranked male applicants as their first choice and over 80% of the interviewers ranked physically attractive candidates as their first choice. Assuming that the applicants who were ranked as "number one" would have been chosen for the position, sex and physical attractiveness appear to have been more important determinants of interviewer decision making than indicated in the analysis of global suitability ratings. A second reason that sex and physical attractiveness should not be discounted as determinants of interviewer judgments is the possible effects these factors may have on interviewer behavior subsequent to resumé evaluation. Past research has indicated that interviewers tend to form an early impression of a candidate and actively seek information to support this impression (Mayfield, 1964; Mayfield and Carlson, 1966). It may be that the sex and physical attractiveness of the candidate, as conveyed to the interviewer through resumé information, may create initial impressions which influence the outcome of a face-to-face interview. In lieu of future research demonstrating the impact of resumé information on the actual interview, the conclusion that sex and physical attractiveness are unimportant appears unjustified.

In conclusion, the present study established that male interviewers discriminated among applicants on the basis of sex and physical attractiveness. Whether or not this was "unfair" discrimination is a decision which must be left to the reader, since the validity of sex and physical attractiveness as predictors of successful managerial performance has yet to be empirically confirmed or disconfirmed. Nevertheless, there are increasing legislative and judicial pressures to eliminate cultural bias from all phases of personnel selection. The present study suggests a paradigm in which the presence of unfair discrimination in the interview may be investigated. A recent study by Wexley, Sanders and Yukl (1973) describes a potential method to eliminate such cultural biases from the interview process.

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FOOTNOTES

1. The study was funded by a David Ross Grant #74-17 from the Purdue Research Foundation, Howard L. Fromkin, principal investigator.

2. The authors appreciate the help of Charles Taylor and Rose Dubek throughout the various steps of this project. The comments of Kay Deaux on an earlier version of this paper are gratefully acknowledged.

3. The authors gratefully acknowledge the help of Mr. Michael Donahue from the Purdue University Placement Center, without whose cooperation, the study could not have been completed.

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TABLE 1

Ss Mean Evaluation of Each Applicants Resumé

	Condition												
Group	MAH*	MAA	MAL	MUH	MUA	MUA	MUL	FAH	FAA	FAL	FUH	FUA	FUL
Interviewers	7.33	6.13	4.90	6.30	5.10	4.23	6.70	5.60	4.73	5.96	4.67	3.86	5.46
Students	7.60	6.57	4.93	6.90	5.40	4.67	7.57	6.13	4.43	6.53	5.30	4.07	5.84

*The letters represent the three manipulated resumé factors: The first letter refers to the sex of the applicant, male (M) or female (F); the second letter refers to the physical attractiveness of the applicant, attractive (A) or unattractive (U); and, the third letter refers to the scholastic standing of the applicant, high (H) or average (A) or low (L).

TABLE 2

Summary of Analysis of Variance of Ss Ratings of Resumés

SOURCE	df	MS	F	eta^2
Total	719	2.856		
Between Groups	59	6.375		
A (Groups)	1	23.835	3.9234*	.0116
Error	58	6.075		
Within Groups	660	2.541		
B (Sex)	1	23.113	15.839**	.0112
AB	1	.501	.3436	.0002
Error	58	1.459		
C(Physical Attractiveness)	1	120.868	69.111**	.0588
AC	1	.612	.3502	.0002
Error	58	1.749		
D(Academic Qualifications)	2	348.172	185.398**	.3391
AD	2	4.822	2.568	.0046
Error	116	1.878		
BC	1	.112	.0686	< .0001
ABC	1	.013	.0076	< .0001
Error	58	1.640		
BD	2	.017	.0187	< .0001
ABD	2	.956	1.070	.0008
Error	46	.893		
CD	2	2.539	2.443	.0024
ACD	2	.617	.5935	.0006
Error	116	1.039		
BCD	2	.317	.3048	.0003
ABCD	2	1.017	.9785	.0009
Error	116	1.039		

*p < .05 **p < .01

TABLE 3

Frequency of Rank for the Twelve Resumés

Protocols	Frequency of Resumé Ranks											
	1	2	3	4	5	6	7	8	9	10	11	12
MAH[1]	30	16	5	4	1	1	0	0	1	1	1	0
MAA	4	2	13	9	9	10	1	4	2	3	2	1
MAL	0	2	4	4	3	6	7	9	10	5	7	4
MUH	9	9	5	9	6	7	6	6	1	0	2	0
MUA	0	1	1	4	6	10	12	9	9	5	2	1
MUL	0	0	0	2	4	0	5	5	10	8	13	13
FAH	10	17	13	8	5	2	3	0	1	0	0	1
FAA	2	4	6	3	8	9	9	6	2	7	3	1
FAL	2	1	0	4	4	4	3	7	12	9	9	5
FUH	2	6	12	8	11	6	5	1	1	6	1	1
FUA	1	2	1	5	3	5	6	11	6	5	6	9
FUL	0	0	0	0	0	0	3	3	5	11	14	24

[1]The letters represent the three manipulated resumé factors: The first letter refers to the sex of the applicant, male (M) or female (F); the second letter refers to the physical attractiveness of the applicant, attractive (A) or unattractive (U); and, the third letter refers to the scholastic standing of the applicant, high (H) or average (A) or low (L).

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